

ABSTRACT

A plasmid vector characterized by comprising a promoter sequence that can be recognized by an RNA polymerase which is not inherent in a host and that controls the expression of desired genes and a replication origin that increases the number of copies under the induction by exogenous factors; methods for expression and isolation of target genes by using the vector; a polypeptide having the activity of an AccIII restriction endonuclease; and a DNA encoding the polypeptide. The invention provides for the first time a plasmid vector which can introduce an exogenous desired gene encoding proteins which are lethal or harmful to hosts into the hosts, a method for efficiently expressing the proteins by using the vector, and also a method for permitting a restriction endonuclease gene constituting a restriction-modification system to be isolated even in the absence of a modification enzyme gene, which has been difficult in the prior arts.